CLAIMS

A method of synchronizing objects between first and 1. (Original)

second object stores, comprising:

maintaining a reference store containing identifying data segments

corresponding respectively to a plurality of objects that are to be synchronized

between the first and second object stores;

submitting a particular identifying data segment from the reference store

to a first interface associated with an application program that maintains the first

object store; and

querying a second interface associated with the application program to

determine whether the object corresponding to said particular identifying data

segment has been changed in the first object store.

2. (Original) One or more computer-readable media comprising

computer executable instructions for performing the method recited in claim 1.

3. (Original) A method as recited in claim 1, further comprising

updating the second object store with the changed object from the first object

-3-

store if the object has been changed in the first object store.

Serial No.: 10/643,710

Atty Docket No.: MS1 -0142USC3

Atty/Agent: Jacob P. Rohwer

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4. (Original) A method as recited in claim 1, further comprising:

determining whether the object corresponding to said particular identifying

data segment has been changed in the second object store; and

updating the first object store with the changed object from the second

object store if the object has been changed in the second object store.

5.(Original) A method as recited in claim 1, further comprising

receiving the identifying data segments from one or more interfaces associated

with the application program, wherein each identifying data segment contains an

object identifier for a corresponding object in the first object store.

6. (Original) A method as recited in claim 1, further comprising

receiving the identifying data segments from one or more interfaces associated

with the application program, wherein some of the identifying data segments

contain data representing properties that are supported by the second object

store but that are not supported by the first object store.

7. (Original) A method of synchronizing objects between first and

-4-

second object stores, comprising:

Serial No.: 10/643,710

Atty Docket No.: MS1 -0142USC3

Atty/Agent: Jacob P. Rohwer

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maintaining a reference store containing identifying data segments

corresponding respectively to a plurality of objects that have previously been

synchronized between the first and second object stores;

submitting a particular identifying data segment from the reference store

to a first interface method associated with an application program that maintains

the first object store;

in response to submitting said particular identifying data segment from the

reference store, receiving a handle that corresponds to said particular identifying

data segment; and

querying a second interface associated with the application program with

the received handle to determine if the object corresponding to said particular

identifying data segment has been changed in the first object store since the last

synchronization.

8. (Original) One or more computer-readable media comprising

computer executable instructions for performing the method recited in claim 7.

9. (Original) A method as recited in claim 7, further comprising if

the object has been changed in the first object store, updating the second object

-5-

store with the changed object from the first object store.

Serial No.: 10/643,710

Atty Docket No.: MS1 -0142USC3

Atty/Agent: Jacob P. Rohwer

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10. (Original) A method as recited in claim 7, further comprising:

maintaining a mapping between identifying data segments and object

identifiers that are used in the second store to identify objects; and

submitting the object identifier that is mapped to the particular identifying

data segment to a program that maintains the second object store to determine

whether the object corresponding to said particular identifying data segment has

been changed in the second object store.

11. (Original) A method as recited in claim 7, further comprising:

maintaining a mapping between identifying data segments and object

identifiers that are used in the second store to identify objects;

submitting the object identifier that is mapped to the particular identifying

data segment to a program that maintains the second object store to determine

whether the object corresponding to said particular identifying data segment has

been changed in the second object store; and

if the object has been changed in the second object store, updating the

first object store with the changed object from the second object store.

12. (Original) A method as recited in claim 7, further comprising

receiving the identifying data segments from one or more interfaces associated

-6-

Serial No.: 10/643,710

Atty Docket No.: MS1 -0142USC3 Atty/Agent: Jacob P. Rohwer

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with the application program, wherein each identifying data segment contains an

object identifier for a corresponding object in the object store.

13. (Original) A method as recited in claim 7, further comprising

receiving the identifying data segments from one or more interfaces associated

with the application program, wherein some of the identifying data segments

contain data representing properties that are supported by the second object

store but that are not supported by the first object store.

14. (Original) One or more computer-readable media comprising

computer executable instructions that, when executed, direct a computing

system to synchronize objects between first and second object stores, the

instructions comprising:

maintaining a reference store containing identifying data segments

corresponding respectively to a first group of objects;

submitting the identifying data segments to a first interface associated

with an application program that maintains the first object store, wherein the

first object store includes a second group of objects that potentially includes at

least some of the first group of objects;

Serial No.: 10/643,710

Atty Docket No.: MS1 -0142USC3

Atty/Agent: Jacob P. Rohwer

-7- $\ker oldsymbol{\omega}$ haves The Business of IP $^\circ$

in response to submitting said identifying data segments, receiving a first

list of handles, said handles corresponding respectively to the objects of the first

group;

querying a second interface associated with the application program for a

second list of handles, said handles corresponding respectively to the objects of

the second group;

matching any handles of the first and second lists that correspond to the same

object; and

querying a third interface associated with the application program with

matching handles from the first and second lists to determine if the object to

which they correspond has been changed in the first object store.

15. (Original) One or more computer-readable media as recited in

claim 14, wherein said matching comprises querying a fourth interface associated

with the application program to determine whether handles of the first and

second lists correspond to the same object.

16. (**Original**) One or more computer-readable media as recited in

claim 14, further comprising computer executable instructions that, when

executed, perform concluding that a particular object has been deleted from the

Serial No.: 10/643,710

Atty Docket No.: MS1 -0142USC3

Atty/Agent: Jacob P. Rohwer

-8- Lee haves The Business of IP*

first object store if the handle from the first list corresponding to said particular

object does not have a matching handle from the second list.

17. (Original) One or more computer-readable media as recited in

claim 14, further comprising computer executable instructions that, when

executed, perform concluding that a particular object has been added to the first

object store if the handle from the second list corresponding said particular

object does not have a matching handle from the first list.

18. (Original) One or more computer-readable media as recited in

claim 14, further comprising computer executable instructions that, when

executed, perform updating the second object store with any objects that have

been changed in the first object store.

19. (Original) One or more computer-readable media as recited in

claim 14, further comprising computer executable instructions that, when

executed, perform:

receiving a modified form of a particular object from the second object

store;

identifying which handle from the second list corresponds to said particular

object;

Serial No.: 10/643,710

Atty Docket No.: MS1 -0142USC3
Atty/Agent: Jacob P. Rohwer

-9-

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providing the identified handle and the modified form of said particular

object to a fourth interface associated with the application program; and

instructing the application program to replace the object corresponding to

the identified handle with the modified form of the object.

20. (**Original**) One or more computer-readable media as recited in

claim 14, further comprising computer executable instructions that, when

executed, perform:

maintaining a mapping between handles and object identifiers that are

used in the second store to identify objects;

receiving a modified form of a particular object from the second object

store;

receiving an object identifier corresponding to said particular object;

referencing the mapping with the object identifier to identify which handle

corresponds to said particular object;

providing the identified handle and the modified form of said particular

object to a fourth interface associated with the application program; and

instructing the application program to replace the object corresponding to

the identified handle with the modified form of the object.

Serial No.: 10/643,710 Atty Docket No.: MS1 -0142USC3

Atty/Agent: Jacob P. Rohwer

-10-

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21. (Original) One or more computer-readable media as recited in

claim 14, further comprising computer executable instructions that, when

executed, perform:

receiving a modified form of a particular object from the second object

store;

identifying which handle from the second list corresponds to said particular

object;

providing the identified handle and the modified form of said particular

object to a fourth interface associated with the application program;

instructing the application program to replace the object corresponding to

the identified handle with the modified form of the particular object;

requesting new identifying data from a fifth interface associated with the

application program for the object corresponding to the identified handle; and

updating the reference store with the new identifying data.

22. (Original) One or more computer-readable media as recited in

claim 14, further comprising computer executable instructions that, when

executed, perform:

requesting new identifying data for a particular object from a fourth

interface associated with the application program if the particular object has

been changed in the first object store; and

Serial No.: 10/643,710

Atty Docket No.: MS1 -0142USC3

Atty/Agent: Jacob P. Rohwer

-11- lee@haves The Business of IP*

updating the reference store with the new identifying data for said

particular object.

23. (Original) One or more computer-readable media as recited in

claim 14, further comprising computer executable instructions that, when

executed, perform maintaining a mapping between handles and object identifiers

that are used in the second store to identify objects.

24. (**Original**) One or more computer-readable media as recited in

claim 14, further comprising computer executable instructions that, when

executed, perform:

maintaining a mapping between handles and object identifiers that are

used in the second store to identify objects; and

maintaining a mapping between the identifying data segments and the

object identifiers.

25. (**Original**) One or more computer-readable media as recited in

claim 14, further comprising computer executable instructions that, when

executed when a particular object has been changed in the first object store,

-12-

perform:

Serial No.: 10/643,710

Atty Docket No.: MS1 -0142USC3

Atty/Agent: Jacob P. Rohwer

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receiving a modified form of the particular object from the second object

store;

identifying which handle from the second list corresponds to said particular

object;

providing the identified handle and the modified form of said particular

object to a fourth interface associated with the application program;

querying a fifth interface associated with the application program for

conflict resolution text; and

prompting a user using the conflict resolution text.

26-31. (Canceled)

32. (Original) A set of application program interfaces embodied on a

computer-readable medium for execution on a computer in conjunction with an

application program that maintains an object store, comprising:

a first interface that receives an identifying data segment and that returns

a handle corresponding to the identifying data segment;

a second interface that enumerates a list of handles corresponding

respectively to objects in the object store and to identifying data segments from

-13-

the respective objects; and

Serial No.: 10/643,710

Atty Docket No.: MS1 -0142USC3

Atty/Agent: Jacob P. Rohwer

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a third interface that receives two handles and in response compares the

identifying data segments corresponding to the handles and returns an indication

of whether the handles represent an unchanged object.

33. (Original) A set of application program interfaces as recited in

claim 32, further comprising a fourth interface that receives two handles and that

returns an indication of whether the two handles correspond to the same object.

34. (Original) A set of application program interfaces as recited in

claim 32, further comprising:

a fourth interface that receives an object having individual properties and

that stores at least some of the individual properties in the object store; and

a fifth interface that returns data representing properties of the object that

are not supported by the object store.

35. (Original) A set of application program interfaces as recited in

claim 32, further comprising:

a fourth interface that receives two handles and that returns an indication

of whether the two handles correspond to the same object;

a fifth interface that receives an object having individual properties and

that stores at least some of the individual properties in the object store; and

-14-

Serial No.: 10/643,710

Atty Docket No.: MS1 -0142USC3
Atty/Agent: Jacob P. Rohwer

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a sixth interface that returns data representing properties of the object

that are not supported by the object store.

36. (Original) A method for synchronizing objects between first and

second object stores, wherein the second object store has objects that include

properties not supported by the first object store, comprising:

sending an object from the second object store to an interface associated

with an application program that maintains the first object store;

storing at least some individual properties of the object in the first object

store;

returning data representing unsupported individual properties without

storing them in the first object store; and

storing the returned data in a reference store that is not implemented by

the application program.

37. (Original) A method as recited in claim 36, further comprising

returning the object, including the unsupported individual properties, to the

second object store.

38. (Original) A method as recited in claim 36, further comprising:

-15-

Serial No.: 10/643,710 Atty Docket No.: MS1 -0142USC3

Atty/Agent: Jacob P. Rohwer

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sending the returned data from the reference store to an interface

associated with the application program; and

returning the object, including the unsupported individual properties, to

the second object store.

39. (Original) A system for synchronizing objects between first and

second object stores, wherein the second object store has objects that include

properties not supported by the first object store, comprising:

a primary computer;

an application program that executes on the primary computer to maintain

the first object store;

a synchronization manager that executes on the primary computer;

the synchronization manager being configured to send an object from the

second store to an interface associated with the application program;

the application program and its interfaces being configured to store at

least some individual properties of the object in the first object store and to

return data representing unsupported individual properties to the synchronization

manager without storing them in the first object store; and

the synchronization manager being further configured to store the

returned data in a reference store.

Serial No.: 10/643,710

Atty Docket No.: MS1 -0142USC3

Atty/Agent: Jacob P. Rohwer

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-16-

40. (Original) A system as recited in claim 39, wherein:

the synchronization manager is further configured to request the object

from an interface associated with the application program;

wherein the application program and its interfaces receive the data

representing the unsupported properties from the synchronization manager and

return the object to the synchronization manager; and

wherein the synchronization manager sends the object to the second

object store.

41. (Original) A system as recited in claim 39, further comprising a

-17-

portable information device that maintains the second object store.

Serial No.: 10/643,710 Atty Docket No.: MS1 -0142USC3

Atty/Agent: Jacob P. Rohwer

